



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 19, 2012

Mr. Matthew McMillen
U.S. Department of Energy
Loan Programs Office (LP-10)
1000 Independence Avenue, SW
Washington, DC 20585

RE: EPA Review and Comments
Final Environmental Impact Statement (FEIS)
Adoption - Vogtle Electric Generating Plant, Unit 3 and 4
Issuance of a Loan Guarantee to Support Funding for Construction
Burke County, GA (DOE/EIS-0476)
CEQ No. 20120031

Dear Mr. McMillen:

The U.S. Environmental Protection Agency (EPA) reviewed the Final Environmental Impact Statement (FEIS) for the Proposed Vogtle Electric Generating Plant (VEGP), Units 3 and 4, Issuance of a Loan Guarantee to Support Funding for Construction, pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. The DOE adopted the Nuclear Regulatory Commission's (NRC's) Final Environmental Impact Statement (FEIS) for an Early Site Permit (ESP) and the NRC's Final Supplemental Environmental Impact Statement (FSEIS) for the Combined Licenses (COLs) for VEGP Units 3 and 4.

In addition to the adoption of the above-referenced FEIS and FSEIS, the DOE/EIS-0476 includes a summary of the DOE's proposed action, loan guarantees totaling \$9.9 billion for the construction and start-up of VEGP Units 3 and 4. The document also summarizes the review under the Farmland Protection Policy Act (FPPA), review of safety and security at the VEGP facility, consultation with the Georgia State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP), and additional review of potential impacts to threatened and endangered species.

The NRC issued an Early Site Permit (ESP) on August 26, 2009, approving the VEGP site as suitable for the construction of Units 3 and 4. NRC issuance of a limited work authorization (LWA) enabled specific pre-construction activities at the site to begin. The USACE permit action on an Individual Permit application pursuant to Section 404 of the Clean Water Act, and Section 401 water quality certification for the VEGP expansion were finalized in September 2010.

On December 22, 2011, the NRC certified the version of the Westinghouse AP1000 nuclear reactor design proposed for the new units. On February 9, 2012, the NRC approved Southern Nuclear's combined construction and operating licenses (COLs) and LWAs for VEGP Units 3 and 4. The COLs and LWAs were issued on February 10, 2012.

EPA previously reviewed and submitted written comments (copies enclosed) regarding the FEIS for the ESP, and the FSEIS for the COLs for the new units. Based on EPA's review of these NRC documents, there are inherent environmental concerns regarding the storage, transportation and disposal of radioactive wastes. In particular, spent nuclear fuel storage and disposal are ongoing concerns with existing and proposed nuclear power plants, particularly until an off-site repository under federal jurisdiction is available for the ultimate disposition of radioactive wastes.

In a September 15, 2010 Decision and Rule, the NRC formally approved a final revision to its "Waste Confidence" findings and regulations (10 CFR Part 51.23). The revision expresses the NRC's *"confidence that the nation's spent nuclear fuel can be safely stored for at least 60 years beyond the licensed life of any reactor and that sufficient repository capacity will be available when necessary."* The NRC made five findings:

1. Safe disposal in mined geologic repository is technically feasible.
2. At least one mined geologic repository will be available when necessary.
3. HLW (high level waste) and SNF (spent nuclear fuel) will be safely managed until a repository is available.
4. SNF can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life.
5. Onsite or offsite storage for SNF will be made available if needed.

On January 4, 2012, the NRC began seeking public comment on a report, entitled *"Background and Preliminary Assumptions for an Environmental Impact Statement – Long-Term Waste Confidence Update,"* updating preliminary assumptions for an Environmental Impact Statement (EIS). The NRC will develop an EIS to analyze the effects of storing spent nuclear fuel from the nation's commercial power reactors (including VEGP) for up to 200 years in a spent fuel basin or at either onsite or offsite independent spent fuel storage installations (ISFIs). Therefore, continued coordination between the NRC and the applicant is needed regarding the management of wastes, environmental monitoring to prevent ecological impacts, emergency preparedness, and radiological monitoring at the VEGP site as the project progresses in order to ensure safety for on-site workers and the public.

Thank you for your coordination with us. Please send us a copy of the Record of Decision (ROD) when it becomes available. If you have any questions or need additional information, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

A handwritten signature in black ink, appearing to read "Mueller", with a stylized flourish at the end.

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures (2)
Cc: Mallecia Sutton, NRC



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ATLANTA, GEORGIA 30303-8960

October 20, 2008

Chief, Rules, Directives and Editing Branch
U.S. Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, D.C. 20555-0001

**RE: EPA Review and Comments
Final Environmental Impact Statement (FEIS)
Vogtle Electric Generating Plant Site
Issuance of an Early Site Permit (ESP) for
Construction and Operation of a New Nuclear Power Generating Facility
NUREG-1872
CEQ No. 20080322**

Dear Sir:

The U.S. Environmental Protection Agency (EPA) reviewed the subject Final Environmental Impact Statement (FEIS) pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. The document provides information to educate the public regarding general and project-specific environmental impacts and analysis procedures, and follows the public review and disclosure aspects of the NEPA process. The purpose of this letter is to inform you of the results of our review.

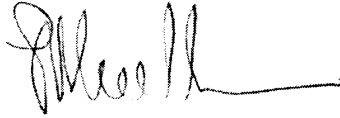
Southern Nuclear Operating Company, Inc. (Southern) applied for an early site permit (ESP) for the Vogtle Electric Generating Plant (VEGP) site, co-located with the existing Vogtle facility. The proposed action is to approve a site within the existing Vogtle boundaries for the construction and operation of a new nuclear power generating facility consisting of two new nuclear reactors and ancillary facilities, and to issue an ESP for the proposed site.

Thank you for addressing our comments regarding the DEIS. Based on EPA's review of the FEIS, a few environmental concerns remain which should be addressed in future NEPA documents. Specifically, there are concerns regarding details of radiological data references. Please see our attached comments.

Additional discussion of appropriate storage and ultimate disposition of radioactive wastes generated on-site, as well as continuing measures to limit bioentrainment and other impacts to aquatic species from surface water withdrawals and discharges should be continued to be addressed during project development. Compliance with the NPDES Permit should be addressed for the existing and new units. The NPDES permittee has operated and is currently operating in compliance with the NPDES permit requirements.

Thank you for the opportunity to comment on this FEIS. Please send us a copy of the Record of Decision (ROD) for our files. If you have any questions or need additional information, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Mueller', with a long horizontal flourish extending to the right.

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

**EPA Review and Comments Regarding
Final Environmental Impact Statement (FEIS)
Vogtle Electric Generating Plant Site
Issuance of an Early Site Permit (ESP) for
Construction and Operation of a New Nuclear Power Generating Facility
NUREG-1872**

Radiological data

Section 2.5, Radiological Environment, does not cite a reference to the radiological environmental monitoring plan. Section 2.5 notes that a pre-operational environmental monitoring program was conducted before 1987 to establish a baseline to observe fluctuations of radiation in the environment after startup. A reference document should be cited.

Section 3.2.1, Plant Water Use, lists sources of liquid radioactive wastes, but there is no reference to a document citing the amount of the waste.

Section 5.9, Radiological Impacts of Normal Operations, should provide a reference for receptor locations identified (i.e., schools, hospitals, residences.)

The FEIS notes that in the high-level waste and spent fuel disposal component of the fuel cycle, uncertainty exists with respect to regulatory limits for off-site releases of radionuclides for the current candidate repository site. We are aware of ongoing efforts to license a geological repository for long-term disposition within the first quarter of the 21st century.

Appropriate on-site storage of spent fuel assemblies and other radioactive waste is necessary to prevent environmental impacts. Given the uncertainty regarding ultimate disposal, on-site storage may continue for a longer term than currently expected.

In the Waste Confidence Rule (10 CFR 51.23), the Commission generically determined that the spent fuel generated by any reactor can be safely stored on-site for at least 30 years beyond the licensed operating life of the reactor. Ultimately, long-term radioactive waste disposition will require transportation of wastes to a permitted repository site.

Wetlands and streams

Wetlands and stream impacts and their mitigation, and the Section 404 permit review process, should be discussed in future NEPA documents for this project. The Section 404 permit review process requires a compensatory mitigation plan for impacts that cannot be avoided or minimized. The Cumulative Impacts section of the FEIS discusses the Limited Waste Authorization (LWA) rule. We note that pre-construction impacts will be discussed in the Cumulative Impacts sections of future EISs for this project, and that approximately 21 acres of wetlands along the Savannah River could be impacted by the project.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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May 6, 2011

Chief, Rulemaking and Directives Branch
Office of Administration
Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: EPA Review and Comments
Final Supplemental Environmental Impact Statement (FSEIS) for the
Combined Licenses (COLs) for Vogtle Electric Generating Plant Units 3 and 4
Construction and Operation, Application for Combined Licenses (COLs), NUREG-1947
CEQ No. 20110088

Dear Sir:

The U.S. Environmental Protection Agency (EPA) reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the Combined Licenses (COLs) for Vogtle Electric Generating Plant Units 3 and 4, pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. We appreciate your responses to our comments regarding the Draft Supplemental EIS (DSEIS), which were included in Appendix E of this FSEIS. The purpose of this letter is to inform you of the results of our review.

Southern Nuclear Operating Company, Inc. (Southern) and four co-applicants applied for combined construction permits and operating licenses (combined licenses or COLs) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4. The proposed action is NRC issuance of a Limited Work Authorization (LWA) for specific site preparation activities and COLs for two new nuclear power reactor units (Units 3 and 4) at the VEGP site near Waynesboro, Georgia.

The NRC issued an Early Site Permit (ESP) on August 26, 2009, approving the VEGP site as suitable for the construction of Units 3 and 4. NRC issuance of a LWA enabled specific pre-construction activities at the site to begin. The NRC is currently reviewing the Westinghouse AP1000 pressurized reactor design in a design certification process. The USACE permit action on an Individual Permit application pursuant to Section 404 of the Clean Water Act, and Section 401 water quality certification for the Plant VEGP expansion were finalized in September 2010.

EPA previously reviewed and submitted written comments regarding the Draft and Final Environmental Impact Statements (EISs) for the Early Site Permit (ESP) for the new units, and for the Joint Public Notice for the U.S. Army Corps of Engineers (USACE) Permit. Since these documents stated that there were no transmission line impacts, our comments at that time pertained to the plant site only. We note that the FSEIS has been updated to clarify the definition of the transmission line Representative Delineated Corridor (RDC), and that construction of the new transmission line right-of-way would not require a LWA issuance, because the construction

of new transmission facilities is not defined as a construction activity under NRC regulations, and that transmission lines are considered in the context of cumulative impacts.

The FSEIS states that the proposed new 500-kV transmission line route is anticipated to be 46 m (150 ft) wide and 97 km (60 mi) long. According to the U.S. Fish and Wildlife Service's biological opinion, the new transmission line would impact over 1000 acres of land, with impacts to approximately 92 acres of forested wetlands. EPA is concerned about this level of impacts of transmission lines and supporting infrastructure for the project and, in accordance with NEPA and Section 404 of the Clean Water Act, we consider the transmission line to be an inseparable part of the project, and not having independent utility. Therefore, in our opinion the transmission line impacts should be addressed as part of the overall Section 404 permit process.

Radioactive waste storage and disposal are ongoing concerns with existing and proposed nuclear power plants. In addition, there are concerns regarding containment of radioactive materials and wastes in case of a natural disaster or other emergency. The NRC approved final revisions to the Waste Confidence findings and regulation (10 CFR Part 51.23) in September 2010. This update expresses confidence that commercial high-level radioactive waste and spent fuel generated by any reactor *"...can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor."* This refers to storage in a spent fuel basin or at either onsite or offsite independent spent fuel storage installations.

Given the uncertainty regarding ultimate disposal at a repository, on-site storage of high level waste (HLW) may continue during operation and for many years following operating license termination. Therefore, there are concerns regarding on-site waste storage and emergency preparedness related to waste storage areas, particularly until an off-site repository under federal jurisdiction is available for ultimate disposition of radioactive wastes.

Based on EPA's review of the FSEIS, there are inherent environmental concerns regarding the storage, transportation and disposal of hazardous waste and radioactive wastes, and the FSEIS notes the need for continuing radioactive and hazardous materials and waste management, environmental monitoring to prevent ecological impacts, emergency preparedness, and radiological monitoring to ensure safety for workers and the public.

In addition, continuing measures to limit bioentrainment and other impacts to aquatic species from surface water withdrawals and discharges are required, in compliance with the NPDES Permit. Also, further data collection may be necessary in the future regarding greenhouse gases (GHGs).

The FSEIS concludes that Environmental Justice (EJ) impacts from the proposed project will be small. However, EPA has been contacted by local EJ advocates and concerned citizens, who have expressed health concerns regarding potential emissions from the power plant. Therefore, we recommend that you continue coordination with the local community and address any potential health and EJ concerns that may arise as the site preparation activities and the licensing process for the two new nuclear power reactor units progresses.

Thank you for your continuing coordination with us. Please send us a copy of the Record of Decision (ROD) when it becomes available. If you have any questions or need additional information, please contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,

A handwritten signature in black ink, appearing to read "Heinz Mueller", with a stylized flourish at the end.

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